#### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-003625 Address: 333 Burma Road **Date Inspected:** 25-Jul-2008

City: Oakland, CA 94607

**OSM Arrival Time: 2230 Project Name:** SAS Superstructure **OSM Departure Time:** 730 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** See below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component: OBG** Fabrication

### **Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following:

Orthotropic Box Girder (OBG) and Tower Fabrication:

QA Inspectors Mr. Wu Ming Kai, Mr. An Qing Xian

Heavy Shop Bay #3

The QA Inspector completed magnetic particle inspection of deck panel DP042-002 weld 8 repair areas following ZPMC personnel completion of 10 percent MT inspection of the repair areas on welds 1 through 8. Items observed by the QA Inspector appear to comply with project specifications. See the TL6028 Magnetic Particle Test Report for additional information.

Heavy Shop Bay #2

ZPMC "Notification of Witness Inspection" document # 00724 dated 7-25-2008 lists that tower C-Skin welds SSD1-SA17G/G-58A/B, SSD1-SA17G/G-17A/B, SSD1-SA17G/G-59A/B, SSD1-SA179D/E-24A/B, SSD1-SA179D/E-10A/B, SSD1-SA179D/E-25A/B and SSD1-SA179A/E-3A/3B are to receive a final ultrasonic

## WELDING INSPECTION REPORT

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(UT) inspection at 1500 hours today. The QA Inspector obtained assistance from ZPMC QC CWI Inspectors Mr. Wu Ming Kai and Mr. An Qing Xian to determine the locations of the above welds. The QA Inspector noted none of these welds appears to have been recently ultrasonically inspected or marked as being UT inspected and after discussion with Mr. Kai and Mr. Xian it was decided to ask ZPMC ultrasonic inspector Mr. Ma Jin Long for additional assistance concerning the status of the ultrasonic inspections. Mr. Long was able to locate an ultrasonic inspection data sheet that contains a weld map showing the above welds. Mr. Long also determined that ZPMC had performed partial ultrasonic inspections of these welds and now the plate has been turned over to allow ZPMC personnel to conduct additional ultrasonic inspections from the top (opposite) side of the plate. Since ZPMC has not completed ultrasonic inspections of these welds the QA Inspector did not perform UT inspections of these welds.

Bay #7

ZPMC "Notification of Witness Inspection" document # 00725 dated 7-25-2008 lists that four welds on floor beam FB040-001 and four welds on floor beam FB027-002 are to be ultrasonically (UT) inspected today. The QA Inspector observed all welds that were UT'd today have been marked as "UT REJECT" by ZPMC ultrasonic inspection personnel. Since ZPMC has not accepted the ultrasonic inspections test results, the QA Inspector did not perform UT inspections of these welds.

Bay #8

ZPMC "Notification of witness inspection" document # 00725 dated 7-25-2008 lists that three welds on floor beam FB089-002, FB090-001, FB041-001, FB090-002 and FB076-001 (15 total) are to be ultrasonically inspected today. ZPMC ultrasonic Inspector Mr. Ma Jin Long informed the QA Inspector that these welds will not be ultrasonically inspected this shift due to the UT rejections in bay #7. Since ZPMC has not accepted the ultrasonic inspections test results, the QA Inspector did not perform UT inspections of these welds.



**Summary of Conversations:** 

See above.

**Comments** 

# WELDING INSPECTION REPORT

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This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ady Velasco 13816942685, who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer